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THE FARM INDEX

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U.S. • AGRICULTURE • U.S.S.R. a statistical comparison

Also in this issue:

Focus on Fruit

Landowners of the Rural South

More Cotton Than Gins—The Backup Problem

Chicken—Our Favored Fowl



economic trends

ITEM	UNIT OR BASE PERIOD	'57-'59 AVERAGE	1964		1965		
			YEAR	MAY	MARCH	APRIL	MAY
Prices:							
Prices received by farmers	1910-14 = 100	242	236	236	239	243	251
Crops	1910-14 = 100	223	238	248	237	243	248
Livestock and products	1910-14 = 100	258	235	225	241	244	254
Prices paid, interest, taxes and wage rates	1910-14 = 100	293	313	313	318	320	323
Family living items	1910-14 = 100	286	300	300	303	303	308
Production items	1910-14 = 100	262	270	270	273	276	278
Parity ratio		83	76	75	75	76	78
Wholesale prices, all commodities	1957-59 = 100	—	100.5	100.1	101.3	101.7	102.1
Commodities other than farm and food	1957-59 = 100	—	101.2	101.1	102.0	102.1	102.3
Farm products	1957-59 = 100	—	94.3	93.7	95.4	97.6	98.4
Food, processed	1957-59 = 100	—	101.0	99.4	101.8	102.3	103.3
Consumer price index, all items	1957-59 = 100	—	108.1	107.8	109.0	109.3	—
Food	1957-59 = 100	—	106.4	105.5	106.9	107.3	—
Farm Food Market Basket: ¹							
Retail cost	Dollars	983	1,015	1,000	1,015	1,022	—
Farm value	Dollars	388	373	360	384	394	—
Farm-retail spread	Dollars	595	642	640	631	628	—
Farmers' share of retail cost	Per cent	39	37	36	38	39	—
Farm Income:							
Volume of farm marketings	1957-59 = 100	—	118	88	89	84	86
Cash receipts from farm marketings	Million dollars	32,247	36,748	2,294	2,459	2,466	2,500
Crops	Million dollars	13,766	16,820	723	740	804	800
Livestock and products	Million dollars	18,481	19,928	1,571	1,719	1,662	1,700
Realized gross income ²	Billion dollars	—	42.0	—	42.1	—	—
Farm production expenses ²	Billion dollars	—	29.4	—	29.7	—	—
Realized net income ²	Billion dollars	—	12.6	—	12.4	—	—
Agricultural Trade:							
Agricultural exports	Million dollars	4,105	6,347	530	696	554	—
Agricultural imports	Million dollars	3,977	4,082	329	420	369	—
Land Values:							
Average value per acre	1957-59 = 100	—	—	131 ³	139	—	—
Total value of farm real estate	Billion dollars	—	—	150.8 ³	159.4	—	—
Gross National Product ²							
Consumption ²	Billion dollars	456.7	622.6	608.8	648.8	—	—
Investment ²	Billion dollars	297.3	399.3	390.0	418.1	—	—
Government expenditures ²	Billion dollars	65.1	87.7	85.9	94.7	—	—
Net exports ²	Billion dollars	92.4	128.6	125.2	131.0	—	—
	Billion dollars	1.8	7.0	7.7	5.0	—	—
Income and Spending: ⁴							
Personal income, annual rate	Billion dollars	365.2	491.4	487.8	513.8	515.0	517.0
Total retail sales, monthly rate	Million dollars	17,105	21,802	21,777	22,805	22,901	23,467
Retail sales of food group, monthly rate	Million dollars	4,159	5,183	5,034	5,301	5,423	—
Employment and Wages: ⁴							
Total civilian employment	Millions	64.9	70.4	70.6	71.4	71.7	71.9
Agricultural	Millions	6.0	4.8	4.8	4.6	4.8	5.0
Rate of unemployment	Per cent	5.5	5.2	5.2	4.7	4.9	4.6
Workweek in manufacturing	Hours	39.8	40.7	40.6	41.4	40.9	41.1
Hourly earnings in manufacturing, unadjusted	Dollars	2.12	2.53	2.53	2.60	2.60	2.61
Industrial Production ⁴	1957-59 = 100	—	132	131	140	141	141
Manufacturers' Shipments and Inventories: ⁴							
Total shipments, monthly rate	Million dollars	28,745	37,129	37,186	40,285	40,074	—
Total inventories, book value end of month	Million dollars	51,549	62,944	60,528	63,708	63,961	—
Total new orders, monthly rate	Million dollars	28,365	37,697	37,893	40,712	41,154	—

Average annual quantities of farm food products purchased by urban wage-earner and clerical-worker households (including those of single workers living alone) in 1960-61—estimated monthly. ² Annual rates seasonally adjusted first quarter. ³ As of March 1, 1964. ⁴ Seasonally adjusted.

Sources: U.S. Dept. of Agriculture (Farm Income Situation, Marketing and Transportation Situation, Agricultural Prices, Foreign Agricultural Trade and Farm Real Estate Market Developments); U.S. Dept. of Commerce (Industry Survey, Business News Reports, Advance Retail Sales Report and Survey of Current Business); and U.S. Dept. of Labor (The Labor Force and Wholesale Price Index).

When is a price high? To the person trying to get the price, probably never; to the person having to pay it, nearly always. Thus, to the man selling slaughter steers or hogs this summer, prices are a little less poor than last year. But to the housewife, beef and pork prices are high.

Confusing? Obviously — because “poor” and “high” are subjective terms reflecting the attitudes of persons using them. They aren’t accurate measures.

Comparisons with other periods can help put recent prices for steer and hog producers in reasonable perspective. Some examples:

For the first five months of 1965, steer prices averaged about \$25 per 100 pounds (Choice steers, Chicago). That was nearly \$4 above a year earlier. However, it was more than a dollar short of the 1957-59 average price.

Hog prices in January-May averaged a little over \$17.50 per 100 pounds (barrows and gilts, eight markets), up about \$3 from the first five months of 1964, but slightly below the 1957-59 average.

Now look at some retail price comparisons to get an idea of what housewives have been paying for beef and pork.

Choice beef prices in January-May 1965 averaged about 79 cents a pound at retail (all cuts). That was 2 cents above a year earlier and about 1 cent higher than prices in 1957-59.

Prices for retail cuts of pork averaged slightly above 57 cents a pound for the first five months of this year, also up 2 cents from the year before, but down a nickel from the 1957-59 average.

Why bring the 1957-59 average into these

comparisons? It’s the benchmark upon which the Consumer Price Index is pegged. The CPI gives a national indication of the prices of goods and services. Last year the index for all consumer goods and services stood at 108.1 (1957-59=100). The average for the first four months of 1965 was 109.

In contrast—and confirming the price comparisons for beef and pork—the meat portion of the CPI was just a shade over 100 during the first four months of this year.

From these comparisons, beef and pork prices through May would appear to be near average, while prices of many other things were above 1957-59.

However, prices the past month or so have been going up. In May, Choice steers at Chicago averaged \$26.88 and hogs at eight markets were \$20.29. Further advances in both prices occurred in June. Retail prices have also gone up.

Even so, the advances haven’t put the prices out of line with the upward trend in the CPI. What’s more, the prices aren’t “high,” if compared with:

- Choice steer prices in November 1962 (\$30) and
- Hog prices in July 1958 (\$23).
- Choice beef prices in September 1962 (87 cents) and
- Retail cuts of pork in July 1958 (69 cents).

Perhaps some of the muttering over beef prices by housewives is due to a vivid recollection of the bargains they got early last summer. Choice beef prices at retail in June 1964 averaged only 75.4 cents a pound.

At that time, there was also grumbling over prices, but from the producers, not the house-



the agricultural outlook

wives. Choice steer prices had been running below \$22 per 100 pounds for six months. This column in July 1964 described the situation using the headline "Beef Over Beef Prices." Ironically, the same headline could be used in July 1965.

Comparisons between the summers of 1964 and 1965 demonstrate how quickly livestock prices can change, and also how wide the changes can be. Moreover, prices can turn downward as fast as upward, depending on short-run supply changes.

Recent price gains have been roughly similar for both livestock and retail meat. Prices at both levels have responded to reduced supply and strong consumer demand.

Since April, beef production has declined from year-earlier levels. This factor is mainly responsible for the recent rise in prices for cattle and beef. Numbers being slaughtered haven't varied much from last year since April, but slaughter weights have been relatively light. Also, much of the production decline has been in fed beef, the kind most popular in supermarkets.

The situation for hogs and pork has been decreasing production—with fewer pigs going to market—for the past year.

Meanwhile, demand factors have continued to be positive: increasing population (about 3 million more people since last year) and higher incomes. Price prospects indicate continued strength for cattle into the fall. Western ranges are in better shape than last summer, tending to hold down the movement of cattle to feedlots this summer.

Price strength for hogs may carry well into 1966. Last year's pig crop was down sharply from 1963, and this year's crop looks even smaller—perhaps 9 per cent below last year. This is based on the 1965 spring pig crop dropping 10 per cent from a year earlier and breeding intentions reports which indicate a decline in the fall crop of about 8 per cent from last fall. The June 1 inventory of hogs and pigs on farms in the 10 Corn Belt states was down 11 per cent from a year earlier.

PRODUCTION COSTS STILL CREEPING UP

Farm production expenses this year are expected to go substantially above 1964 levels. Prices paid by farmers rose in January-May after relative stability throughout 1964. Rising costs of livestock and feed have been largely responsible for the recent gains.

The numbers below tell the story; they are mid-month indexes of prices paid by farmers for production items, interest, taxes, and wage rates. (1910-14 = 100) :

Month	1964	1965
Jan.	324	328
Feb.	323	329
Mar.	324	329
Apr.	325	333
May	323	335
June	332	335

CIGARETTES: CONSUMPTION RESUMPTION

U.S. cigarette consumption reached an all-time high for the year ended June 30, 1965. An estimated 533 billion cigarettes were smoked. This was about 16 billion above the previous high in 1962/63 and 9 billion above the 1963 calendar year record. The figure represented a gain of about 24 billion over 1963/64, when the release of the Smoking and Health Report in January 1964 caused a short-term decline.

The increased consumption of cigarettes resulted from gains in the smoking age population and probably the resumption of cigarette smoking by those who had smoked cigarettes previously after abstinence or switching to pipes and cigars.

Cigarette output in 1964/65 was an estimated 562 billion, up nearly 5 per cent from the year before and about 3½ per cent above 1962/63. Cigarette exports probably reached a fiscal year high in 1964/65.

Cigar and cigarillo consumption also was estimated at a record high for fiscal years in 1964/65—about 9 billion, or 9 per cent above a year earlier.

It takes cash, credit and courage to produce fruits and nuts. But, orchardists continue to supply all our favorites.

FOCUS ON FRUIT



When it comes to producing fruits and nuts, California growers are so far out in front that no other state has much hope of catching up. In 1963, California's fruit and nut crops accounted for 47 per cent of total U.S. output of 17 million tons. The total value of these crops was \$1.6 billion. California's producers claimed 41 per cent of this figure.

California fruits and nuts make up quite a list. During 1963, the Golden State led in production of lemons, apricots, avocados, grapes, peaches, pears, plums, prunes, strawberries and walnuts. California growers also produced all of the almonds and practically all of the dates, figs, nectarines, olives, persimmons and pomegranates sold off farms.

But even though California's list of fruits and nuts is impressive, on the basis of individual crops several other states are more than holding their own. For example, Washington led in production of apples and sweet cher-

ries during 1963, Michigan in output of sour cherries, Massachusetts in cranberries, Florida in oranges and grapefruit, Georgia in pecans and Oregon in filberts.

Florida also grew all of the commercial crops of tangerines, tangelos and limes. In value of citrus production alone, Florida accounted for 66 per cent of the 1963 total. California growers took 30 per cent. (1)



Anyone who has studied statistics knows that numbers can be deceiving. Apple tree numbers are no exception. Since the end of World War II, they have declined in most of the key apple producing states. At the same

time, apple production has remained fairly stable thanks to gains in output per tree. Any year-to-year fluctuations have been due largely to weather.

However, an analysis of the makeup of the apple tree population—the number, age, type and relative importance of each variety—suggests that we're due for a gradual rise in apple output over the coming decade. The gain will be due both to the larger number of trees and to greater output per acre.

The basis for the prospects of an even larger apple crop is given in the results of several tree surveys made since 1960 in 10 major apple producing states. They include New York, New Jersey, Pennsylvania, Virginia, Indiana, Illinois, Michigan, New Mexico, Washington and Oregon. Together these surveys accounted for more than 13 million apple trees, or more than half of the total number estimated in orchards of at least 100 trees.

HANDFUL OF STATES LED IN FRUIT AND NUT PRODUCTION DURING 1963

State	Deciduous fruits		Citrus fruits		All fruits		Tree nuts		All fruits and nuts	
	Production	Value	Production	Value	Production	Value	Production	Value	Production	Value
	Tons	1,000 dollars	Tons	1,000 dollars	Tons	1,000 dollars	Tons	1,000 dollars	Tons	1,000 dollars
California	5,944,450	419,405	1,957,000	174,055	7,901,450	593,460	139,600	72,115	8,041,050	665,575
Florida	22,200	7,657	3,969,500	382,922	3,991,700	390,579	3,400	1,188	3,995,100	391,767
Washington	1,083,295	95,381	—	—	1,083,295	95,381	340	160	1,083,635	95,541
New York	656,040	65,475	—	—	656,040	65,475	—	—	656,040	65,475
Michigan	473,600	52,653	—	—	473,600	52,653	—	—	473,600	52,653
Oregon	218,730	28,690	—	—	218,730	28,690	10,400	4,812	229,130	33,502
Pennsylvania	287,565	26,629	—	—	287,565	26,629	—	—	287,565	26,629
Other states ¹	1,793,430	205,585	283,075	21,906	2,076,505	227,491	178,000	65,619	2,254,505	293,110
United States	10,479,310	901,475	6,209,575	578,883	16,688,885	1,480,358	331,740	143,894	17,020,625	1,624,252

¹ Does not include Alaska and Hawaii.

The surveys disclosed that plantings in existing orchards generally have been heavier than necessary just to maintain the number of bearing trees. Forty per cent of the trees in orchards at present were planted during the past 10 years. Most of these trees aren't yet of bearing age (five to seven years old). This indicates that 1964's record output of 140 million bushels was produced from roughly two-thirds of the trees now in orchards.

In some of the states surveyed, as many as half of the trees in commercial orchards aren't old enough to bear much of a crop yet. Once these trees reach bearing age, their output will continue to expand for several years.

The western states have the highest proportion of young trees. The central states are next and the eastern region is last.

The type of trees planted is an indication of future production, too. Since 1959, roughly a third of all new plantings have been

dwarf or semidwarf trees. According to the special tree surveys, these types accounted for only 5 per cent of all trees previously in orchards. Dwarf and semidwarf types are gaining popularity because they start bearing sooner (from three to five years after planting). They also have a greater potential output per acre because they can be planted closer together.

When the current number of apple trees of all ages is ranked according to variety, Red Delicious is well out in front with 37 per cent of the total. Golden Delicious follows with 14 per cent and Rome, McIntosh, York, Stayman and Jonathan are the runners-up.

It looks as though the Delicious varieties will be the winners hands down in the future, too. Of the new trees planted in the survey states since 1959, nearly half were Red Delicious. Golden Delicious accounted for an additional 20 per cent. (2)

A Quick Return for Small Investment Isn't Possible From a Citrus Grove

When people unfamiliar with farm production costs read about the gross returns per acre for high-value fruit crops, they may easily think that producers are getting rich overnight. What they fail to realize is that buying farmland and planting an orchard are extremely costly. And the farmer has to wait four years or more before his orchard or grove begins to return much of an income. And then, frost or other adverse weather can damage his crop or destroy his trees.

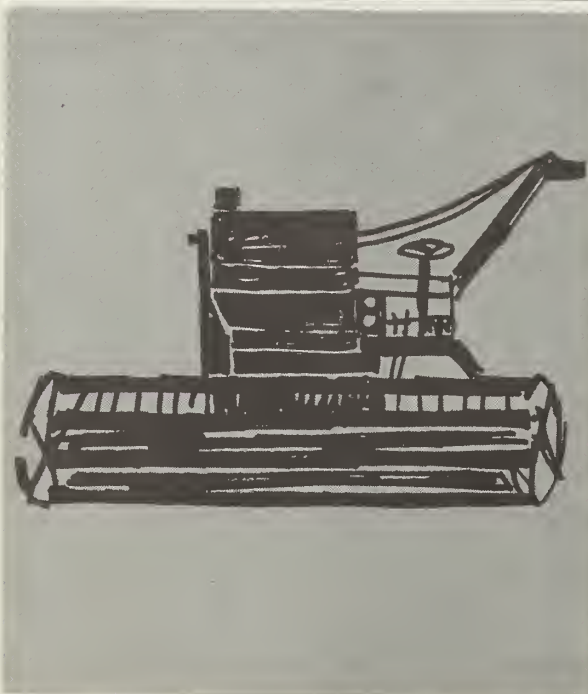
Arizona contains one area where a number of new citrus groves have been planted recently. In a recent study made in cooperation with the Arizona Agricultural Experiment Station, ERS researchers found typical costs of developing an orange grove, excluding the cost of land and frost protection, to be a minimum of \$1,215 an acre. With frost protection devices (wind machines, heaters and the like), the bill came to at least \$1,760 an acre. (These were accumulated costs through the fifth year and allowed credit for limited crops in the fourth and fifth years.)

The price of land suitable for citrus production varies more than any other cost item. In Arizona, the range is from \$600 to \$3,000 an acre, depending on location, quality and development of the tract. At \$600 an acre, this brings the minimum cost of planting a grove to \$1,815 an acre without frost protection and \$2,360 with such equipment.

Most of the cash development costs are for land preparation, trees, layout and planting, irrigation labor, water, wrapping for trees (materials and labor), wind machines, heater oil, weed and pest control, fertilizer, taxes and insurance. In addition, the grower incurs noncash costs of depreciation on the equipment and should

COMBINE: OWN OR RENT? The fixed annual costs of a self-propelled combine include depreciation (use tax figures), repairs, shelter, insurance, taxes and interest. Dividing by the acres of grain combined results in fixed annual costs per acre. The variable costs are those that depend on the number of acres combined—fuel, oil and grease.

The data in the table are averages of the replies to a 1960 survey of wheat farms in northeastern Colorado. Although the figures probably are higher nowadays and are likely to be different for other farming areas, they still illustrate cost items and relative amounts for them. (3)



Size in feet	14	16
Cost when new	\$6,430	\$7,126
Investment in 1960	\$3,858	\$7,276
Acres of use annually	380	376
Annual fixed costs:		
Depreciation ¹	\$367.43	\$457.07
Repairs	97.99	87.76
Shelter, insurance, taxes	123.26	130.22
Interest ²	308.64	342.08
Total	\$897.32	\$1,035.13
Per acre	2.36	2.75
Operating costs per acre		
Total	.71	.71
	\$3.07	\$3.46

¹ Cost when new less 20 per cent—remainder divided by estimated years of use. ² Eight per cent.

allow for interest on his investment in the grove.

All the preceding outlay merely brings the grove up to bearing age. When the grove is able to bear a crop, harvesting costs enter the debit side of the grower's ledger. Adding the annual expense of picking the fruit and hauling it to the packinghouse to the prorated existing cash operating costs resulted in 1963 in a total cost of about \$575 an acre for grapefruit, \$580 for Valencia oranges, \$596 for lemons and \$605 for Navel oranges. Per carton, the costs of harvesting fruit were \$1.55 for grapefruit, \$.97 for Valencias, \$.79 for lemons and \$.71 for Navels. Materials and labor accounted for about four-fifths of the total with the rest going to cash overhead.

The study also revealed that harvesting costs for Arizona citrus have gone up rapidly in recent years. Those for oranges and grapefruit during the 1962/63 season were half again as much as the typical expense during 1951/52. Lemon harvesting costs doubled between 1958/59 (the earliest year for which figures are available) and 1962/63. (4)

Increasing Output or Rising Incomes Bolster Farm Price Little, If at All

Econometricians, like Christopher Columbus, are embarking on the discovery of a new world. In place of a queen's jewels, the researchers will use statistical analyses to make their findings. The search is for actual measures of the effects prices and incomes have on demand for farm products.

Chief of the farmers' difficulties is the fact that if they produce a surplus, their price is depressed by a greater percentage than output increases. And farm prices are more flexible than those at retail. This means that a small cut in the retail price will be much larger by the time it reaches the

The Winners

If a Texan tries to tell you that the Lone Star State has the most farms and the most land in farms, he's absolutely correct. According to the figures for 1964, Texas contains 210,000 farms and ranches accounting for 154 million acres of farmland.

After the No. 1 place is taken, the rest of the top honors are up for grabs. In number of farms, second place in 1964 went to North Carolina with 195,000 farms, third to Iowa with 170,000, fourth to Missouri with 162,000 and fifth to Tennessee with 154,000.

In the land-in-farms category, Montana was second with 66.7 million acres, New Mexico third with 51.7 million, Kansas fourth with 49.9 million and Nebraska fifth with 48.1 million. (5)

farmer because the costs of processing and marketing the product are less likely to change over a brief period.

In trying various kinds of statistical analyses on demand for farm products, researchers selected as examples a group of seven perishable foods which require little or no processing. These products were potatoes, sweetpotatoes, tomatoes, grapefruit, apples, beef and milk. Averages of supplies, prices and consumer incomes during 1958-62 were used in the calculation.

Here are the results:

For all seven products, an increase in *production* resulted in a much lower retail price. Potatoes suffered the most—retail prices were reduced 2.57 per cent when production rose 1 per cent.

Average farm prices for all the products dropped even more than those at retail when output rose. Again, potato prices declined the most—a 1 per cent increase in production depressed farm prices by 5.28 per cent.

When consumer *income* increased (and output was stable), the retail prices of all the products except sweetpotatoes rose.

But most price spreads (marketing costs) increased because part of the higher incomes were due to higher wages for workers in food processing and marketing firms. So the farmer got little or no benefit from rising retail prices. In fact, price spreads for potatoes, sweetpotatoes and apples rose at a faster rate than retail prices so the farmer wound up with an even smaller return. In the case of sweetpotatoes, a 1 per cent rise in consumer income reduced retail prices 0.63 per cent and farm prices 1.63 per cent. (6)

Replacing Braceros With Domestic Workers Ups Migrant Housing Needs

Last December the law expired under which Mexican braceros entered the United States to take temporary farm jobs. The Bracero Program, which had operated under Public Law 78 since its enactment in 1951, had been the major source of foreign contract laborers entering the U.S. each year to help harvest the fruit and vegetable crops.

A few foreign workers are still permitted to enter under Public Law 414, the Immigration and Nationality Act. But growers, particularly in California and other western states where most braceros were used, will have to rely mostly on domestic laborers. High among potential domestic replacements for braceros are those workers who migrate with the harvesting season.

Amidst the many discussions which have followed the end of the Bracero Program, one aspect of the situation has not received much publicity. It is: how to house the domestic migrants and the families who replace the braceros.

The foreign workers who were permitted to enter the U.S. came without their families. They were housed primarily in barracks or dormitory-type camps with central baths and mess facilities.

Such accommodations are inadequate for families.

The Economic Research Service, at the request of the Farmers' Home Administration, recently undertook a study to determine how much additional housing, if any, is needed for domestic migrants and their dependents during the peak harvesting periods of 1965.

ERS researchers started with the number of foreign workers housed in 1963. They allowed for the maximum replacement of workers by mechanization and improved technology. Then they calculated the additional number of people (mostly workers' dependents) who needed to be housed during the peak harvest seasons this year, assuming part of the work force would be single persons, part families.

On this basis, accommodations would be needed for 1,500 to 6,500 persons in California; 1,000 to 3,000 in Michigan; and up to about 600 in Arizona.

However, if the braceros were replaced entirely by migrants with families, the number of additional persons needing housing could rise as high as 29,000 in California; 7,000 in Michigan; 3,000 in Colorado; 1,700 in Arizona; and 700 in New Mexico. (7)

Technology and Declining Preference Built Up a Nest for an Egg Revolt

Declining demand, falling prices, shifting production areas—this is a simplified version of the egg “revolution” that occurred during the last 10 years.

Since 1954, egg consumption per capita has dropped steadily. However, largely because of population growth, total production and use of eggs has changed comparatively little. Farm prices for eggs fell from an average of 36.6 cents a dozen in 1954 to 33.8 cents in 1964.

During 1954-64, production of eggs shifted from the Northeast

and Midwest to the South and Far West. As a result, the latter two areas became surplus producers of eggs and the size of the Midwest's supplies were reduced. The North Atlantic region (New York, New Jersey, Pennsylvania and the New England States) remained the only major egg deficit area in the country.

The relocation of hatcheries and farms was caused by improvements in technology and changes in the organization of the industry which encouraged large, specialized operations to expand even when profit margins were narrowing. The South was best able to use the opportunities inherent in large-scale operations because of relatively low feed and labor costs during 1954-64. (8)

After Turbulent Past Two Decades Broiler Growers to Feel Cost Pinch

In a history of agricultural production, broilers would probably get only a few pages near the end of the book. They entered the farm picture less than 20 years ago. But what their past has lacked in length, it made up for in action.

From the mid-1940s into the 1950s, broiler output expanded rapidly. Annual average prices for the U.S. as a whole were never lower than 27 cents a pound and this encouraged farmers to add the new enterprise to their operations. Prices were favorable because demand for broilers expanded even faster than population.

Consumption rose quickly because the quality of broilers was improved, they became more widely available and they were offered in a greater variety of packaged forms—whole, cut up, halved for broiling and as special parts. In addition, a decline in supplies of chickens from egg laying flocks helped to spur the gain.

After the relatively favorable 1944-54 period, broiler prices

trended sharply lower. As broiler supplies expanded further, prices to producers fell from 27 cents a pound to 14 cents. Spectacular improvements in technology, reductions in feed costs and changes in industry organization helped to rapidly lower production and marketing costs. But in the process, profit margins also narrowed and many less efficient growers left the industry.

After past experiences, the broiler industry is probably wondering “what's next.” For one thing, researchers feel that further advances in techniques of producing and marketing broilers—particularly in nutrition, feed efficiency and management—aren't likely to occur as fast as they did during the 'fifties. For instance, mortality rates are now at such a low level that there is little room for more improvement. As a result, any more opportunities for producers to cut costs will be smaller and farther apart.

Prospects for broiler demand in the next decade are that it may not rise much faster than the population, even with additional innovations in merchandising and promotion. There are several reasons for this.

First, supplies of chicken meat other than broilers have dropped as far as they're likely to go. So there's not much more slack for broilers to fill in this area.

Second, turkeys are likely to become much more of a competitor for broilers. Reductions in turkey production and marketing costs probably will be greater than any further change for broilers because improvements in turkey output are occurring at a faster pace. This will enable turkey producers to sell their product at an even more attractive price.

And third, broiler exports to West Germany, our top foreign market in recent years, probably will decline due to Common Market tariffs and greater competition from other European countries' products. (9)



Though Negro farmers, like whites, left southern farms in droves during the 'fifties, Negroes at the decade's end owned more than 8 million acres of land and made up more than an eighth of all

LANDOWNERS OF THE RURAL SOUTH

The decade of the 'fifties saw tremendous changes in the southern agricultural scene. Millions of farm people moved into nearby towns or farther afield.

The rapid exodus from the farm affected the lives of everyone in the South. White farm owners left the land in considerably greater numbers than Negroes, but the impact was less as a percentage of the total. The number of white full- and part-owner operators in the South declined by a fourth during the decade. The decline among Negro farm owners was more than a third, and in 1959 the United States had less than half the number of Negro farmers it had in 1950.

The major decrease in Negro farmers in the United States occurred among tenant farmers, including sharecroppers. The decline in the number of Negro farmers who owned the land they farmed was less rapid, but there were 66,000 less in 1959 than in 1950.

More than 93 per cent of the 284,612 Negroes still operating farms at the end of the 'fifties

lived in 15 southern states. Information obtained from an ERS study of rural landowners in seven of these states has been analyzed in order to compare white and nonwhite owners of rural land in terms of personal characteristics, use of land, occupation and means of acquiring land.

According to the survey data, Negroes held rural land primarily for two reasons: for either a farm or a homesite. Unlike whites, they seldom held rural land primarily for investment purposes (such as commercial forest land).

More Negroes than whites reported farming as a full-time occupation; but less than half as many Negroes as whites were part-time farmers.

Although the percentage of rural landowners who were retired farmers was small for both groups, nearly twice as many Negroes as whites were classified as such. Apparently Negroes are less likely to sell their farms and move into town upon retirement.

Compared to white owners,

Negroes first acquired land at an older age; they had smaller farms; and they bought and sold land less often. Also, they relied more heavily on inheritance as a means of acquiring land and they held less land in sole ownership.

Nearly a third of the Negro owners held land in partnership, estate or some other multiple-ownership arrangement. By contrast, less than 16 per cent of the white owners had part interests in land.

Married couples who were sole proprietors were the largest landholding group for both Negroes and whites. Husband-wife owners made up 70 per cent of all white landowners and they held about 70 per cent of all white-owned land. Among Negroes, husbands and wives were only 46 per cent of the total landowners, but they generally owned the larger tracts and had 59 per cent of all land held by Negroes.

The percentage of single women owners was about the same for whites and nonwhites, but twice as many single Negro men were owners as single white men. (10)

Young Farmer With Family Financial Aid Can Build Bigger Business Faster

Nowadays it takes a good deal of capital paid in to get a farm to pay off. So if a young farmer gets some help from his family when starting out, the job of accumulating capital and building up the business becomes a little easier.

Of 49 farmers surveyed in Missouri's eastern Ozarks during 1960, those who received assistance from their families were able to build up bigger farms—and more financial assets—faster than the men who did the job single-handed.

The survey, conducted by the Missouri Agricultural Experiment Station, in cooperation with ERS, included only full-time farmers. (Men who worked off the farm for more than 100 days a year were excluded.) All the farmers interviewed were under 45 years of age, had gross farm sales of \$5,000 or more in 1960 and had been farming approximately 12 years.

Thirty-two of the 49 farmers stated that they had received substantial family help when they started out—ranging from gifts of farmland and buildings to the use of family-owned resources such as land and equipment.

Twenty had begun as partners with another member of their family; many rented some of their land from relatives. The 17 men who had received little or no help from their families had either saved the necessary capital from nonfarm earnings or rented land from non-relatives.

By 1960, the 32 farmers who had received assistance from their families were operating considerably larger farms than the group which had gotten no help, 603 acres compared with about 378 acres. Most of them raised beef cattle as their major enterprise but those who had the largest net incomes also produced hogs (usually feeder pigs).

The farmers who had received family help owned farm assets valued around \$49,995, over \$10,000 more than those of the men who got no help. However, the latter group had greater nonbusiness assets, \$1,332 compared with \$1,010 for the men who had help from their families. (This was largely because many of the men with help were unmarried sons who lived at home and did not own household goods.)

Of course, the final measure of a man's financial position is net worth. Then men with family help were generally worth more in 1960 than those who had no help. (11)

Townships Take on Village Authority While Trying to Halt Fragmentation

There's something new in local government. It's the old township dressed up as a village.

This phenomenon has appeared in a number of midwestern metropolitan areas in recent years. The former pattern of government on the fringes of these areas—a large number of small villages, each containing only a few square miles—has given way to the formation of huge villages which incorporate all of a former 36-square-mile township.

A recent study of the rural communities around the Minneapolis-St. Paul area in Minnesota helps to throw some light on the forces that result in township incorporation.

The most common argument in favor of turning the township into one huge village, and against partial incorporation, is that the piecemeal process robs the remaining area of the most desirable parts. The tax base is cut far faster than the need for services.

Size is another plus-factor for incorporated townships. Typically, they run to 36 square miles, an area that would give the population plenty of room for growth.

One of the reasons the township itself is used is that it already provides an organized framework of local government. And township officials are often community leaders.

The need for added services, though part of the reason for incorporating townships, is not so important as the community's fear of fragmentation.












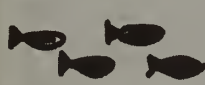
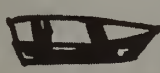
Actually, most of the townships in the area around the Twin Cities already have many of the powers of a village. They have, for instance, about as much power as a village government to control real estate development and they can provide a wide range of services to the community. (12)

FAMILY HELP MADE STARTING FARM BUSINESS EASIER IN EASTERN OZARKS

Balance sheet	Averages for all operators receiving—	
	family help	no family help
	Dollars	
Total investment in agriculture	57,310	50,565
Total debt	7,315	10,718
Value of owned farm assets	49,995	39,847
Value of nonfarm assets	1,010	1,332
Net worth	51,005	41,179

THE BALANCE SHEET: Final figures are in from a study of outdoor recreation enterprises in five states and the New England region. As the table shows, farmers can lose as well as make money on recreation enterprises. Most of the businesses returned less than \$10 per day to management and family labor. Part-time enterprises provided supplementary income for many farmers on an investment of less than \$15,000, but the full-time efforts of at least one worker and an investment of over \$50,000, were required for an income sufficient to support a family. This investment is comparable to that in full-time farming. Major causes for small returns: small size of the enterprise and too few customers. The latter was partly a matter of little

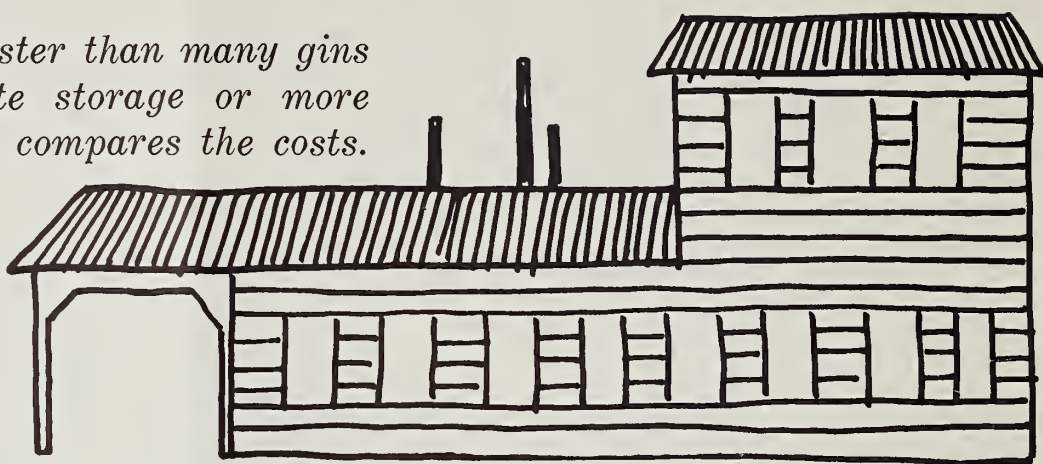
use mid-week and short seasons. The farmers who were successful in attracting sufficient customers credited: advertising; location on a paved road or near a public recreational area; well developed community enterprises to attract more customers for a longer season; and customer satisfaction with the variety and quality of facilities and services offered. There is real money to be made by farmers and rural residents in providing recreation facilities for urban customers (see high end of ranges in table). But success depends on the operator's managerial skill in assessing demand (and keeping up with changes), acquiring the necessary capital, building appropriate facilities, pleasing customers and keeping costs down. (14)

Enterprise	Number of cases	Capital investment	Annual cash income	Annual cash expenses ¹	Net cash income	Return to management and family labor ²
 Fishing lake (warm water)	35	3,250 to 48,330	55 to 7,000	20 to 5,049	-260 to 2,200	-1,160 to 1,426
 Fishing lake (trout water)	10	1,626 to 105,100	450 to 30,000	52 to 26,021	28 to 7,665	-1,749 to 4,830
 Guide service	8	0 to 7,500	500 to 8,450	4 to 4,660	238 to 2,740	196 to 3,469
 Vacation farm or dude ranch ³	12	9,365 to 130,000	400 to 32,500	54 to 27,936	-600 to 4,564	-1,100 to 1,757
 Vacation farm ⁴	7	0 to 960	42 to 2,650	54 to 1,325	-12 to 1,325	-12 to 1,322
 Hunting area	22	0 to 23,000	75 to 11,000	0 to 6,950	75 to 3,850	75 to 2,567
 Shooting preserve	10	11,750 to 152,850	2,500 to 50,600	4,953 to 45,000	-3,440 to 14,850	-8,050 to 11,625
 Campground	19	1,205 to 34,800	125 to 9,600	0 to 2,502	-446 to 7,819	-1,215 to 7,134
 Picnic area	8	700 to 83,150	50 to 1,468	8 to 857	-150 to 792	-2,546 to 592
 Riding stable	15	5,115 to 40,000	400 to 21,000	368 to 6,200	-2,290 to 15,210	-3,985 to 13,210
 Youth camps	6	7,460 to 140,000	6,300 to 56,000	3,270 to 44,280	3,030 to 23,090	1,215 to 16,880
 Minnow farm	11	2,490 to 503,000	50 to 160,000	54 to 91,400	-265 to 68,600	-378 to 43,450
 Boat rental	9	3,300 to 54,500	325 to 37,000	210 to 32,705	115 to 5,484	-385 to 3,684

¹ Includes property taxes. No depreciation expense or payment of principal on debt is included. ² Annual income less annual expenses and a 5 percent charge for invested capital. ³ Major use of farm or ranch. ⁴ Secondary use of farm.

MORE COTTON THAN GINS—THE BACKUP PROBLEM

Machines can now pick cotton faster than many gins can handle it. Solution? On-site storage or more gin capacity. A new ERS study compares the costs.



Back in the days when most cotton was picked by hand, gins could easily keep up with the harvest, stretching as it did over many weeks.

Today, however, mechanical harvesters have cut harvest time

to a few weeks and ginners often find raw cotton coming in faster than their plants can handle it. Loaded trailers back up in gin yards, delaying their return to the fields which, in turn, delays the harvest.

Two obvious solutions for ginners come to mind: Build on-site facilities for portable basket or bulk storage, or increase hourly ginning capacity.

Which solution is most economical depends upon plant size and the volume of cotton handled. ERS researchers have just developed a formula to help individual gin operators decide which course to choose.

Portable basket storage for 500 bales of cotton would require an investment of about \$34,100; for 5,000 bales, about \$219,400.

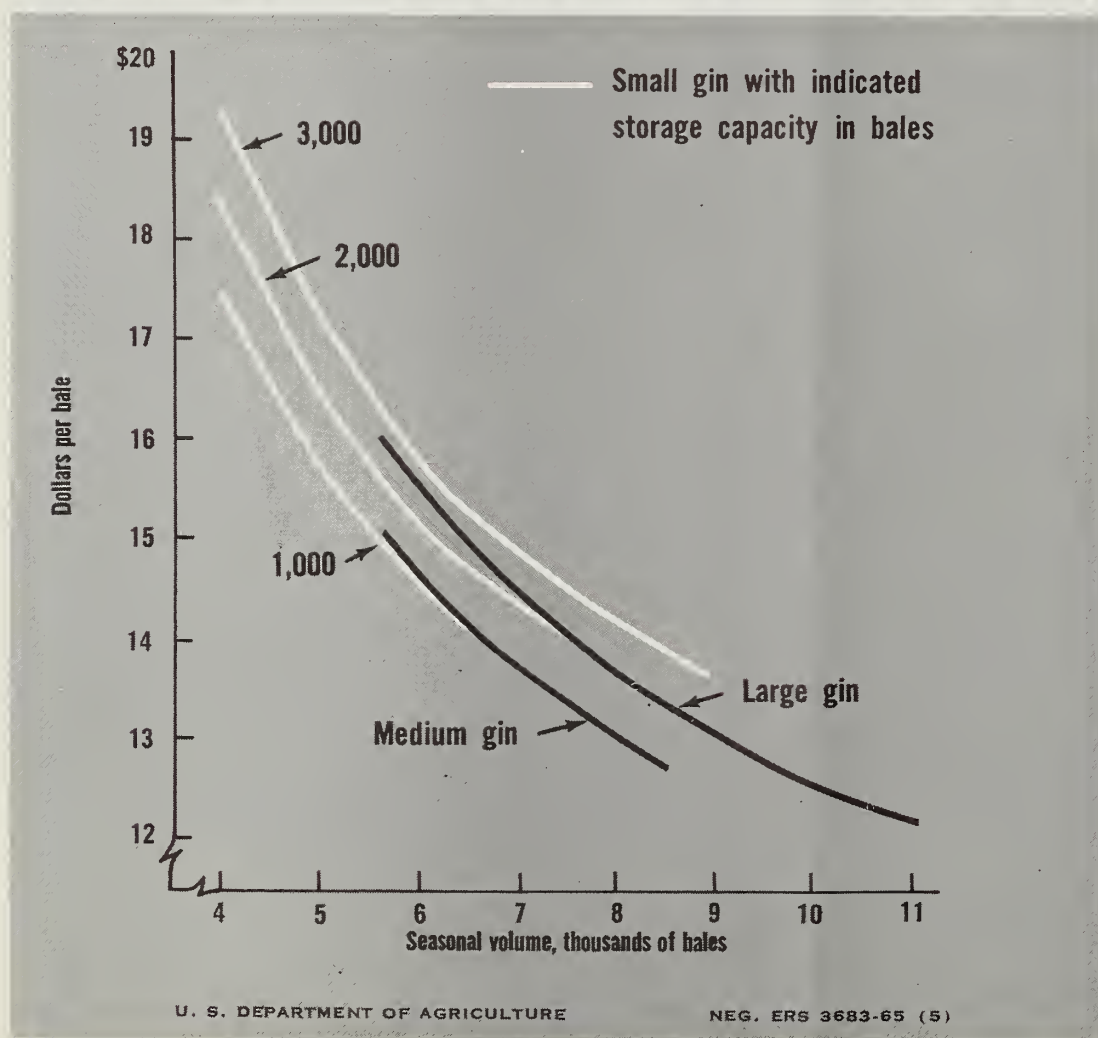
Bulk storage in the gin yard would cost from \$24,150 for a 500-bale unit to \$173,500 for a 5,000-bale facility.

Under present conditions it's unlikely that such on-site storage could be used more than once during the season. Were it used to capacity, storage costs in portable baskets would run about \$7.50 per bale for a 500-bale unit, dropping to \$5 a bale for a 5,000-bale facility. Bulk storage costs would run 20 to 25 per cent less.

The added storage would extend the ginning season, thus increasing total volume handled and lowering *ginning costs* per bale. However, the ERS study points out, *storage costs* are likely to more than offset the reduction in *ginning costs*.

For example, total plant cost for a small gin (rated at eight bales an hour) with no storage is

BASKET STORAGE NOT ALWAYS THE SOLUTION: The combined costs per bale for storage and ginning at many small gins with basket storage capacities of from 1,000 to 3,000 bales are greater than ginning costs alone at medium- and large-size plants that don't provide basket-type storage.



\$13.47 per bale when seasonal volume is 6,000 bales. Portable basket storage for 1,000 bales ups capacity to 7,000 bales a season but also increases per bale cost to \$13.67. But suppose it's a short crop year and only 6,000 bales are processed; with the 1,000-bale storage facility sitting idle, average per bale cost jumps to \$14.32.

The small gin operator can justify adding up to 1,000 bales of storage capacity only if seasonal volume isn't expected to go over 7,000 bales. Above this volume, he should consider increasing the size of his plant, by expanding the present gin or building a new one.

Total and per bale costs rise similarly as storage is added in medium- and large-size plants (12 and 16 bales an hour, respectively).

For each dollar invested in new ginning equipment, yearly cost for depreciation, interest on investment, plant insurance and taxes is estimated at \$0.09 (which converts into a cost factor of .09). Annual fixed cost of storing 1,000 bales in portable baskets averages \$5,110. Dividing the cost factor of .09 into \$5,110 gives \$56,778. This is the amount a gin operator could spend to modernize or replace plant equipment as economically as he could build 1,000-bale storage.

Obviously, if plant modernization costs more than \$56,778, the ginner is better off building storage capacity. If it costs less, than he would do well to forget storage and concentrate on updating the plant.

In addition to fixed costs, the ginner must consider his variable costs for labor, power and other operating items. The ERS study shows that to provide basket storage for 1,000 bales would increase variable costs by \$1,140; for 3,000 bales, by \$3,240.

Although costs would be relatively higher for medium and large-size gins, the same rule of thumb applies. (14)

Consumers Buying More Cotton Goods Have Upped Mill Use and Imports

U.S. consumers are buying more cotton goods this year than last. This upswing in demand has pushed up the price of cotton cloth in recent months; the April wholesale value (based on 20 kinds of fabrics made from a pound of cotton) this year averaged 2.07 cents a pound higher than in April 1964.

To catch up with unfilled orders, mills are expected to consume more upland cotton this crop year, ending July 31, than at any time in the last 12 years. At 9.3 million bales, mill consumption in 1964/65 is expected to run 800,000 bales above 1963/64.

In April, mills were using a total of 35,907 bales a day (seasonally adjusted rate). This was 4 per cent more than was consumed in March and 10 per cent more than in April 1964.

Meantime, U.S. imports of cotton textiles have climbed, too. We imported 176,800 bales (raw cotton equivalent basis) in January-March 1965, 24,900 bales more than in the first quarter of this year.

Conversely, when the crop year ends this month, U.S. raw cotton exports are expected to be down, about 1.2 million bales below the 5.7 million bales we shipped abroad in 1963/64. One reason is more competition from other cotton exporting nations which have had record high crops this year. (15)

Cotton Adds Defenses Against Fire, Oil, Water, Wrinkles in Bid for Sales

Polyester. Acrylic. Triacetate.

Such fiber names are changing the vocabulary—and product mix—of the textile industry.

Each having somewhat different properties, these man-made fibers have cut into some long established markets for cotton. For instance, cotton's share of the women's apparel market dropped

from 50 per cent in 1957 to 39 per cent by 1963.

What isn't generally known is that cotton still accounts for about three-fourths of all fabric going into mens' and children's clothing.

Big reason is our affluent society. More homemakers have automatic washers and dryers, more families have leisure time. About two out of three women interviewed in a survey for the Cotton Producers Institute said cotton is the easiest fabric to wash. Women also said cotton is the most comfortable fabric for their family.

However, the cotton industry isn't relying just on the present built-in advantages of cotton. Working with USDA research scientists, the industry is developing more utility for cotton:

—*Drip-dry cotton.* Over 52 per cent of all easy-care textiles are now cotton. About 2.2 billion yards of the improved cottons are produced a year, according to the National Cotton Council.

—*Stretch-woven cotton.* Sports-wear calls for fabrics that stretch but hold their shape. Cotton knit has been used for many years. Now the same stretchability comes in woven cotton.

—*Oil and water repellent cotton.* Cotton has long been used in rainwear and industrial uniforms because it's cooler than other fabrics. Now a permanent oil and water repellent makes cotton much more attractive to customers.

—*Fire retardant cotton.* Still experimental, such cotton will find a use in uniforms for firemen and in textiles for homes, public buildings and industrial plants.

—*Permanent crease treatments.* These enhance the appearance of cotton garments and make them easier to care for.

—*Cotton batting.* Improved fibers make cotton batting in sofa pillows and other upholstery spring back into shape more readily after long periods of pressure. (16)

In Rough, Tough, Workaday Jobs, Jute Holds on Against Synthetics

You can walk on them, ship potatoes in them, lasso a steer or tie up a bale with them. They are the rough, workaday vegetable fibers that take a distant second place in public notice to the refined natural fibers of cotton.

Yet such coarse fibers as jute, sisal, hennequen and abaca have been produced and woven into fabrics and cords for as long as cotton and probably in more parts of the world.

Even today, despite competition from such sources as paper in bags and coarse toweling, synthetics in bagging and electrical insulation, the U.S. annually imports roughly 1.2 billion pounds of the vegetable fibers a year.

Main imports are jute from India and Pakistan; sisal and hennequen from Yucatan; and hemp, or abaca, from the Philippines. Raw or as burlap, cordage, twine and so forth, these fibers account for 97 per cent of U.S. vegetable fiber imports, excluding cotton and flax. Jute imports alone are well over half the total.

Vegetable fibers are facing a harder time on the U.S. scene as a result of changing marketing

practices, as well as because of increased competition. For instance, the greater use of bulk handling methods for some farm products has cut down the need for burlap. Between 1945 and 1963, imports for all fibers except jute and the minor kapok and sunn fibers dropped slightly.

And with an increased push by synthetics for use in twine, rope, belting and even carpet backing, the vegetable fibers will have to work even harder to hold on to their markets.

The job calls for the development of new uses for vegetable fibers, the establishment of guidelines for use of the end product and an adjustment of prices. (17)

Cost Analysis of Rice Mill Functions Indicates Areas for Major Savings

Take two rice mills and nothing about the way they work is quite the same. Take the 74 mills in the country and the variations are unlimited.

But these variations can be reduced to manageable size by setting up models for different types of plants. With such models as guides, it is easier to locate stages in the milling process where the biggest savings in production

labor can be made.

That, roughly, is what a new ERS study does. The study is the result of analysis of production labor for selected mills in the leading rice producing states.

Highlights of the report are:

The way rice is received can run up quite a bill in the form of labor requirements. For instance, the rough rice department uses a total of about 13 man-hours per 1,000 hundredweight (cwt.) to handle dry rice when it comes in by rail and is unloaded with hand shovels. The department uses half this time when the dry rice comes in on trucks and is unloaded by cradle hoist, hook-type body lift or truck lift.

And when the rice is wet, the cost in labor goes up. For one thing, it takes 1,088 cwt. of wet rice to equal 1,000 cwt. of dry rice; extra weight means extra labor.

Variations in milling labor tie in closely with size of plant and method of operation. Take the big plant among the models, the one that operates its own power plant and processes hulls. Labor requirements might run to 31 man-hours for every 1,000 cwt. milled. This amount of labor is only about three-fourths the amount needed by a small mill that doesn't operate a power plant or process hulls. The difference in milling labor would be even greater if the small plant ran its own power plant and processed hulls.

When it comes to the clean rice department of the mill, the biggest difference in labor needs shows up in the contrast between binning the rice or bagging it as it is milled. When the theoretical models are set up to include bagging the rice as it is milled, blending from the bags and loading directly with hand trucks, labor requirements run to 52 man-hours per 1,000 cwt. This figure is about two and a half times the labor needs in a model that calls for binning directly as milled, then blending from the bins. (19)

FRESH FRUIT BY FREEWAY: For the intermediate and long haul of California-Arizona fresh fruits and vegetables, trucks made dramatic inroads in rail traffic in the 1950s. Fresh produce receivers in Denver used about half rail, half truck service in 1951, switching to virtually all truck by 1960. Railroads had 90 per cent or more of the Atlanta and New Orleans business in 1951; by 1960 the two carriers were about splitting the traffic. Of the major markets surveyed by ERS, only Newark-New York failed to show a noticeable shift to motor carriers. Although long-haul truck rates are usually higher than rail rates, produce receivers say they like the speed of trucks, up to two days faster than train service, and the convenience of multiple pickup and delivery. (18)

Shipped from California-Arizona to—	Traffic handled by—			
	rail		truck	
	1951	1960	1951	1960
	Per cent			
Atlanta	95.3	55.6	4.7	44.4
Chicago	99.6	90.5	0.4	9.5
Denver	51.9	5.9	48.1	94.1
Newark-New York	99.9	98.4	0.1	1.6
New Orleans	90.0	47.9	10.0	52.1
Washington, D.C.	99.9	92.1	0.1	7.9

Hatcheries Could Cut Costs in Half If Consumers Ate Turkey All Year

If consumers considered turkey more than just the holiday bird for Thanksgiving and Christmas, hatcheries could operate more months of the year and substantially cut their annual cost of producing poults.

These conclusions are borne out in a new ERS study based on figures gathered from 27 operating hatcheries.

Almost 84 per cent of the hatcheries surveyed operated at less than half their potential annual capacity. Use of capacity was as low as 3.3 per cent in smaller plants, as high as 88 per cent in larger ones.

Basic problem, of course, is the short marketing year. Over half of the 90 million or more turkeys produced each year are purchased by consumers in November and December.

Since most turkeys are marketed when they are five to six months old, this pushes back the egg setting and hatching season to the spring months, chiefly April.

Twenty of the hatcheries surveyed were in business less than nine months a year so many were run in conjunction with other farm enterprises.

Using figures supplied by the hatcheries, economists set up six synthetic model plants ranging from an annual capacity of about 1 million eggs to 20 million. It was assumed that 56 per cent of eggs set in plants of all six sizes would be sold as poults.

On this basis, the models showed that the cost per poult hatched was 6.34 cents in the smallest hatchery when only 40 per cent of capacity was used. But this was cut almost in half, to 3.88 cents a poult, when a full year-round capacity could be used.

As expected, larger plants did even better. At 40 per cent of capacity, the cost per poult was 4.04

cents, dropping to 2.39 cents at full capacity.

Next, economists plotted the cost per poult if plants operated at full capacity only over a 34-week period, the average operating period of the hatcheries surveyed. This would represent 58 per cent of annual capacity.

Smallest hatchery costs would be 5.06 cents per poult, while in the largest plant they would run 3.18 cents.

The study points out that most of the economies gained by increasing hatchery output are reached when a hatchery sets about 5 million eggs a year.

At 40 per cent of 34-week capacity costs per poult were 9.14 cents and 5.89 cents, respectively. (20)

Fruits, Vegetables From Every State, But Half Our Supply Grows in West

No matter how far north or south, east or west, there isn't one of the 48 contiguous states that doesn't produce some fresh fruits or vegetables for interstate trade.

The range of activity, however, extends from the 600 tons of produce shipped out of South Dakota in 1963, to California's 3.6 million tons in the same year.

In all, more than 14 million tons of major fresh fruits and vegetables were hauled to interstate markets in 1963. More than half this total was produced west of the Mississippi, mostly in the Pacific Coast states plus Arizona, Idaho and Texas.

By states, California led and Florida, with 2.6 million tons, ranked second in the amount of fresh fruits and vegetables shipped out of state. Maine came in third with 957,000 tons shipped.

About a fourth of the total interstate shipments were destined for four eastern cities—New York, Chicago, Philadelphia and Boston—though not all the produce stayed there. Some was shipped on to other markets.

Major markets in the western area were Los Angeles, St. Louis, Dallas and Minneapolis.

Since World War II, truckers have taken the lead from the railroads in hauling fresh fruits and vegetables across state lines. Trucks handled about 55 per cent of the volume given to the two carriers in 1963. A negligible amount travels by air or water.

All but one of the 11 states that shipped predominantly by rail were west of the Mississippi. Maine, the one eastern state giving more business to the railroads, sent only a third of its produce to market in trucks.

By and large, short hauls are cheaper by truck, long hauls by rail. For intermediate hauls, the carriers are competitive.

For example, most of the fresh fruits and vegetables received in 37 principal market centers from nearby states arrived by truck. But the trucks are taking an increasing share of intermediate and long haul traffic, too. Main reason for the trend is in the services offered by the truckers. (21)

What's New In Marketing Research

The Farm Index reserves this space for announcements of significant new projects in marketing research to be undertaken by or for the Economic Research Service.

The Potential Market for Sterilized Milk Concentrate in Selected Types of Institutions. Developed by the University of Wisconsin, this new milk concentrate has the same nutritive value as whole milk. With 75 per cent of the water removed, its storage space requirements are only one-third those of whole milk. Because it's sterilized, it has a long shelf life.

ERS, in cooperation with the University, is now undertaking a marketing study of the new product's acceptability in hospitals, schools, children's homes and similar institutions. Projected completion date: September 1966. (22)

U.S. AGRICULTURE U.S.S.R. a statistical comparison

A new comparison of agriculture in the United States and the Soviet Union has just been compiled by international economists of the Economic Research Service.

In a series of tables (condensed at right) the new report shows agriculture's role in the two economies in terms of people, land, farm inputs and, the crucial comparison, farm production.

As of 1963 there were over 3.5 million farms in the United States, less than 48,000 in the Soviet Union. Yet the Soviets had 540 million acres of sown cropland, far more than our 309 million acres.

How do so few Soviet farms cultivate so many acres? The answer of course lies in the structure of Soviet agriculture. Of the 48,000 farms, some 38,000 are state-supervised collectives, averaging about 33,000 acres per farm. Living on each collective are an average of 411 farm families.

The other 9,000-plus farms are larger still, averaging 147,000 acres and 775 workers. These are the farms owned outright by the state.

By comparison, U.S. farms average 325 acres and 1.4 workers.

Whereas only about 7 per cent of the total U.S. work force produces all the food and fiber we need, both at home and for export, over one-third of the Soviet work force is engaged in agriculture.

At 62 pounds of plant nutrients per acre, U.S. fertilizer use is four times that of the Soviet Union. As for farm machinery, we have many more tractors, trucks and grain combines than the Soviets.

On balance, the Soviets have much more acreage under cultivation and a far larger percentage of the population working in agriculture than we do. We on the other hand make much greater use of modern technology such as fertilizer and farm machinery.

How, then, do the production figures of the two agricultural systems compare?

The U.S. far outstrips the USSR in total output of corn, soybeans, cotton and tobacco. The Soviets have a substantial lead in wheat and produce five times the potatoes we do. Potatoes and grains are major food items in the Soviet diet, accounting for two-thirds of average daily calorie intake.

Turning to yields (not included in table), the ERS report shows that in 1963 the United States produced more per acre of all major crops except cotton. For this commodity Soviet yields were 23 per cent above our own. But all cotton in the Soviet Union is irrigated, while very little of ours is. Soviet yields as a per cent of ours were corn, 33; wheat, 36; rice, 60; tobacco, 42; and potatoes, 34.

As for livestock (not shown) the comparisons show that the U.S. had 106.7 million head of cattle in 1963, the Soviets only 85.4 million head. The USSR also had fewer hogs, but many more sheep, horses and poultry than the U.S.

What about production of meat and other livestock products? The U.S. produced 17.3 billion pounds of beef and veal in 1963; the USSR, 6.9 billion pounds or about 40 per cent of our production. The U.S. outranked the USSR in output of pork, poultry meat, lard, margarine and shortening, tallow, milk and eggs.

Yet the Soviets have surpassed us in production of butter, 1.9 billion pounds to our 1.4 billion. They far exceeded us in wool output with 814 million pounds to our 287 million.

ERS economists caution that 1963 was not a typical year for agriculture in either country. The U.S. had a record crop year, while the USSR had the poorest year since 1957. (23)



WHAT IT TAKES THEM TO PRODUCE WHAT THEY DO



NEW COMPARISONS FOR 1963

United States

Soviet Union

PEOPLE

It takes over a third of the Soviet work force to grow food, less than one-twelfth in U.S.

189.4	National population	Millions	224.7
68.8	Annual average employment	Millions	102.0
4.9	Annual average employment in agriculture	Millions	37.0
7.1	Farm share of total work force (annual average)	Per cent	36.3
1.4	Workers per farm	Number	State 775.0
—	Households per farm	Number	Collective 411.0

FARMS

Soviet farms are huge, state-owned or -controlled operations with hundreds of people each. U.S. farms are family-run with one or two workers.

3,573	Number of farms	Thousands	Collective 38.7
			State 9.1
325	Land area per farm	Acres	Collective 32,470
			State 147,300
309	Sown cropland	Million acres	540
86	Sown cropland per farm	Acres	Collective 7,156
			State 24,160

INPUTS

U.S. uses four times the amount of Soviet fertilizer, four times the tractors, twice the combines.

62	Fertilizer (plant nutrient) use on sown area	Pounds per acre	15
4,657	Tractors	Thousands	1,442
2,915	Trucks	Thousands	922
1,010	Grain combines	Thousands	517

PRODUCTION

U.S. on 230 million fewer acres (see FARMS above) has higher production of most major grains.

195	Eight major grains, combined	Million tons	91
4,092	Corn	Million bushels	386
1,142	Wheat	Million bushels	1,470
699	Soybeans	Million bushels	10
—	Sunflower seed	Thousand tons	3,940
15,334	Cotton	Thousand bales	8,138
2,343	Tobacco	Million pounds	340
271	Potatoes	Million hundredweight	1,425

Asian Rice Bowl, Given Era of Peace, Should Vie With U.S. for World Sales

Five countries comprise the ancient Rice Bowl of Southeast Asia—Thailand, Burma, Cambodia, Laos and South Vietnam.

Today's news stories out of the troubled bowl make Page One in the world press. However, it's highly possible, says a new ERS study, that given a period of internal security and economic development, the Rice Bowl may land on the business pages. It could well become a serious competitor of the U.S. in world agricultural markets, especially for rice and corn.

The bowl is aptly named. The little five produce one-sixth of the free world's rice, but they market two-thirds of all rice moving in international trade. And they account for 85 per cent of all exports to the rice-eating Far East.

Rice is top foreign exchange earner in Burma and Thailand, bringing in 75 per cent and 35 per cent of all export revenues, respectively. Rice ranks second, after rubber, in Cambodia and South Vietnam, accounting for 30 per cent of foreign exchange earnings in both countries.

By 1960-64 (average), the five together had upped rice output 48 per cent over the annual prewar production of 17 million metric tons. Thailand, with little damage to rice paddies in World War II, has accounted for about half the total increase. Burma and South Vietnam are still recovering from extensive war damage, although Burma with higher yields now produces as much rice as it did prewar on 12 per cent less acreage.

All of which shows that the Rice Bowl, dependent as it is on a single commodity, will be looking for new markets for its expanding production.

There's already strong competition with the U.S. for rice markets in the Far East. The Rice Bowl has a competitive advantage in such things as lower transportation costs and a cultural and historical affinity with Far Eastern buyers that U.S. suppliers can't match.

Corn is another commodity that's coming up fast in the competition between the U.S. and Rice Bowl suppliers, particularly in the Japanese market.

Thailand has increased its corn production to over 1 million tons, nine times what it was in the late 1950s. And, as the ERS study

points out, the other Rice Bowl countries could undoubtedly do the same. Most of Thailand's increase is due to more acreage planted plus the introduction of a new corn variety. Additional yields of 50 to 70 per cent are possible with stepped-up fertilizer use and pest control measures.

In 1963, Japan bought about 40 per cent of its corn imports from the U.S., about 16 per cent from Thailand. But the Thai sales represented 80 per cent of that country's total corn exports.

In addition, Thailand and other Rice Bowl countries are promoting new or bigger markets for both rice and corn in Hong Kong, Singapore and the industrialized West.

Also, they seek to diversify their farm exports, adding such items as live animals for slaughter, pork and pork products, fruits and vegetables.

These plans for the future, if successful, should up export earnings that in turn can raise the average living standard for the Rice Bowl's 80 million people. Economic success hinges on political stability and peace—perhaps the two most uncertain commodities in Southeast Asia at the present time. (24)

Foreign Spotlight

UAR-EGYPT. Construction of the Aswan High Dam is running a full year ahead of schedule. The main structure will be in place by 1967. Full water capacity should be reached by 1969, two years earlier than expected. The shorter construction time will cut overall costs of the project. However, more important to the Egyptian people is the fact that water will be available sooner to expand the crop area in a country chronically short of food.

AUSTRALIA. A prolonged dry spell in several areas is seriously threatening crops, pasture and livestock for 1965/66 and possibly the 1966/67 season.

CUBA. Despite shortages at home, Castro is starting to ship beef to Europe in a bid to increase foreign exchange earnings. Havana has contracted to send 10,000 head of cattle and 10,000 tons of frozen beef to Spain. Some 3,000 steers will go to Italy. And negotiations are said to be underway with France. Meanwhile, beef is rationed in Cuba.

ARGENTINA. Meat packers have protested a new export tax of 9.5 per cent on chilled and frozen beef. They say their industry lost \$27 million in 1964 and that wage increases for workers are pending. The government action was taken to prevent exporters from realizing a windfall profits following the devaluation of the peso. Packers claim their gain from devaluation would run only about 2 or 3 per cent. (25)

New Roads, More Refrigeration Open Way to Progress for Many Nations

When all-weather roads connected mountain farms in the Philippines with the lowlands, farmers shifted from subsistence crops to cold weather vegetables that brought in cash from the towns and cities.

The Mediterranean rim of Africa has the resources to produce grapes, melons and an array of other fruits and vegetables, and could produce them during the season of short supply in central and west European markets. But the region lacks refrigeration equipment needed to get the produce to the market.

The two stories illustrate the role of marketing facilities in economic progress for developing countries. A new road in the Philippines made it possible for farmers to grow much-wanted cash crops.

Meanwhile underdeveloped regions of the Mediterranean basin are cut off from potential markets and profitable enterprises.

Without an adequate marketing system it is almost impossible for a country to shift from subsistence to commercial farming. It takes adequate transportation and handling and storage facilities to supply industrial workers in the towns with food. And as incomes rise even a little, people eat more and better food, food that calls for more marketing services.

The lessons are clear:

—The best laid plans to encourage farm production of cash crops will come to nothing if facilities to market the produce are inadequate.

—As soon as a region provides for basic marketing needs, such as roads, trucks and adequate communication, there is often a spontaneous growth of market-oriented farm production. This type of growth is a bonus, in addition to whatever has been planned for the area's economy.

—Providing such incentives, along with careful planning, can direct new production toward the most saleable products, away from commodities already in surplus.

—Every plan for economic development should be preceded by a careful study of marketing conditions, the sales potential for new crops and the methods of directing production into the most useful channels.

Examples of ways in which inadequate planning and a lack of marketing facilities hamper economic development are endless.

It costs about 35 cents per kilometer to operate a truck on unimproved roads in Turkey; it's 22 cents on better roads.

Sometimes it takes only a fairly simple improvement to give an economy a boost. Bullock carts, for example, are basic transportation in many parts of the world. Fitting the carts with axles and tires makes it possible to carry more with less wear on roads. (26)

Explosive Population Gains Nullify Progress in Pakistani Agriculture

For the last 10 of its 17 years as an independent nation, Pakistan has been engaged in a planned struggle to attain self-sufficiency in food production. During its first five-year development program (1955-60), the government spent some \$300 million on helping Pakistani farmers up crop yields. This amount was

more than doubled during the second plan which ended June 30; approximately \$718 million was allocated to agriculture.

Yet despite some fairly substantial gains in total production, the country begins its third five-year plan this month with per capita food output just about where it was a decade ago.

Pakistan's burgeoning population has just about nullified what gains in farm production there have been. Only in 1963, when farmers in East Pakistan harvested a record rice crop and West Pakistan produced a bumper wheat crop, did output top population increases.

Although the government has set gains of approximately 25 per cent as the targets for rice and wheat production by the end of the third plan, it is unlikely that the nation will be much closer to attaining self sufficiency in foods by 1970, or even by 1975.

With a probable 34 million more mouths to feed by 1975, indications are that Pakistan will likely need to import more food than it does today, particularly as some improvement in dietary levels is considered necessary.

How much it can afford to import will depend in part on the amount of food made available under U.S. aid programs. The U.S. has already supplied Pakistan with more than \$1 billion worth of surplus agricultural commodities under P.L. 480 since the law was enacted in 1954. (27)

FIVE YEARS LATER, PAKISTAN'S PER CAPITA OUTPUT
LOWER THAN AT OUTSET OF SECOND DEVELOPMENT PLAN
(1952-54 = 100)

Index	1960	1961	1962	1963	1964
Agricultural production	117	123	124	135	129
Per capita agricultural production	101	103	102	108	100
Food production	121	124	125	137	131
Per capita food production	104	104	102	110	102
Population	116	119	122	125	129

Proliferating patios and burgeoning barbecues are speeding the upward trend in consumption of

CHICKEN—OUR FAVORED FOWL



"In the past 12 months, how often have you served broilers or fryers on the average—about how many times a week or month?"

This is one of the questions asked of more than 2,600 homemakers in a recent national poultry survey by USDA's Statistical Reporting Service. The interviewees were chosen to provide a cross section of private households—rural and urban—throughout the 48 adjoining states.

Their opinions, wants and criticisms are of special interest because of the changes in the last decade in consumption of poultry. Per capita consumption of both chicken and turkey has been increasing. At the same time, prices received by producers have dropped.

The survey last year was designed to provide data on some of the factors influencing the demand for poultry. It included many of the same questions asked in a similar survey in 1956.

Ninety-seven per cent of all homemakers interviewed in 1964 had served chicken during the preceding 12 months. This was an increase nationally of 4 per cent compared with the 1956 survey.

The greatest regional increase was in the Northeast—from 88 per cent to 95 per cent. Every

region gained except the South, which was already the top consumption region at 98 per cent in 1956.

Sixty-four per cent of the users in 1964 reported serving broiler-fryers once a week or more—an increase of 14 per cent over 1956. Frequency of use was closely related to family size. Probably because chicken is less expensive than many meats, larger families tended to serve chicken more often.

Almost 70 per cent of the homemakers said that the whole bird was the best buy for their money. Those who generally bought parts said they were more interested in the number of parts than in the total weight of the package.

In the 1964 survey, homemakers were given a list of things many people look for when buying chicken and asked to choose the characteristics they felt were most important. Seven out of 10 mentioned wanting their chicken well cleaned, without bruises or discoloration, and the right size. About six in 10 wanted chicken that was government inspected; and more than half mentioned plumpness and freedom from pinfeathers. About four in 10 said they depended on the store for quality chicken, while only two in

10 picked "the brand name" from the list of characteristics as important to them. Two other factors of apparently little consequence in consumer decisions were "soft moist skin," selected by two in 10, and "flexible breastbone," mentioned by only one in 10.

The results of the two surveys turned up some changes during the last decade in the ways homemakers prepared chicken for their families. Frying was the most popular method in both surveys. But its popularity had declined compared with the relative increase reported for other methods. The percentages of homemakers serving broiler-fryers by each method were: fried, 94 per cent in 1956 and 87 per cent in 1964; baked or roasted, 41 and 65 per cent; broiled, 26 and 43 per cent; barbecued, 17 and 47 per cent; other ways, 11 and 2 per cent.

Outdoor cooking increased considerably. Thirty-five per cent of all homemakers reporting chicken use in the 1964 study said they had cooked broiler-fryers outdoors. Eleven per cent reported doing so in 1956.

Another part of the two surveys was a series of questions about use of turkey. Seventy-six per cent of the homemakers in 1964 re-

ported using turkeys—an increase of 11 per cent since 1956. However, turkey was served relatively infrequently. In both surveys about three out of four homemakers said they served turkey only one to three times a year. Eight users in 10 served turkey primarily for special occasions, such as Thanksgiving and Christmas.

Another important factor was turkey size. But this characteristic worked both ways. Three in 10 mentioned buying turkey because it would feed large groups of people or provide leftovers for later meals or snacks. Four out of 10 of the homemakers who said they *didn't* use turkey mentioned size as a limiting factor. Size also figured in preferences for hens or toms. (28)

Nineteen Children of Every Twenty Can Get Milk at School in the U.S.

More children are drinking more milk in more schools more often than ever before, according to a recent study by the Economic Research Service. As of 1962, 19 out of every 20 U.S. school children could obtain milk at school. Approximately 17 of these children could buy milk at reduced prices under USDA's Special Milk Program or, if needy, receive it free.

In 1957, the wholesale value of milk consumed in public schools with lunchrooms was \$192 million. Five years later this consumption was valued at \$285 million. Wholesale prices changed little during the period so the jump reflects a very real increase in total milk consumption.

More children are drinking milk. The school population is increasing. So are the numbers of schools where milk is offered. A steadily growing number of schools are offering milk with lunches under the National School Lunch Program, and reduced-price milk under the Special Milk

Program. All but 2.8 million of the 43.7 million children having access to school milk in 1962 were enrolled in schools affiliated with one or both of these federal programs.

In addition to the growth in total consumption, daily milk consumption per public school child rose from 0.7 half pint in 1957 to 0.8 half pint in 1962.

Where children paid less for milk, they consumed more. In schools where reduced-price milk was available, average consumption was more than 50 per cent above that in schools offering milk outside of the Special Milk Program. Almost 6 per cent of the Program milk was served free to needy children.

Morning and afternoon milk breaks are becoming more common. In about 45 per cent of the schools offering milk in 1962, milk service was available at least twice a day. In 15 per cent of these schools, milk was offered three times each day.

The kind of service available was also a factor in increased per capita consumption. The highest consumption levels were found in schools where school staff members handed out milk at lunch time and the children could get milk from vending machines at other times. The lowest consumption rates were encountered in schools providing no personal services in dispensing milk. (29)

Smoke Signals

In 1964 the number of cigarettes smoked by Americans averaged 11 cigarettes a day per person 18 years and older. Doesn't sound like many until you add up the year-end total—4,191 for each smoker and nonsmoker or 511 billion for the U.S. as a whole.

In addition to cigarettes, U.S. men puffed a record 9.1 billion cigars and cigarillos last year—154 apiece—and consumed about 84 million pounds of smoking tobacco in pipes and "roll your own" cigarettes. (30)

Coffee Far and Away the Leading Imported Food on American Menus

Ever long to get away from it all, to visit foreign lands and exotic places? Why not take a vicarious trip some morning simply by glancing around your breakfast table? Even the most commonplace of menus would transport you to all four corners of the world.

Your coffee—probably grown in Latin America (particularly Colombia and Brazil) or Africa. Prefer tea instead? It likely hails from Ceylon or India. Use sugar? Chances are nearly even it came from abroad, likely from the Philippines, West Indies or Latin America. The pepper on your eggs—Indonesia.

Last year about 12 per cent of all the food we ate (on a value basis using prices in 1957-59) was imported from other countries or shipped in from U.S. territories. Of these, coffee was by far the most important.

Other major food imports were beef and veal, sugar and sirups, bananas, cocoa products and fishery products.

About one-fourth less imported red meat found its way onto U.S. dinner tables in 1964 than in 1963, an abrupt change from the upward trend in previous years.

On the other hand, more of the fish we ate, nearly one-third, was imported, compared with only a fourth in 1963. In addition, some of the fish processed in the U.S. was imported. When this amount is added to direct imports, about half of the edible fish consumed last year was imported.

U.S. domestic sugar production has been rising in recent years; in 1964 U.S. imports furnished less than half of consumption, compared with slightly over 50 per cent in 1963.

About a fourth of all tree nuts eaten in 1964 were imported but most of these items were not grown in volume in the U.S. (31)

PEANUT ACREAGE ALLOTMENTS AND FARM LAND VALUES. R. F. Boxley, Jr., Resource Development Economics Division, and W. L. Gibson, Jr., Virginia Agricultural Experiment Station. Va. Agr. Expt. Sta. Tech. Bul. 175.

The objective of this study was to estimate the sale value of an acre of peanut allotment, independent of the land and buildings associated with it, in the peanut producing area of Virginia during 1956-60.

SUPPLEMENT FOR 1964 TO GRAIN AND FEED STATISTICS. Economic and Statistical Analysis Division. Statis. Bul. 159.

This publication revises and updates tables carried in the 1962 edition and serves as a statistical handbook to supplement the Feed Situation, the Wheat Situation and the Rice Situation.

PRODUCTION AND PRODUCTION REQUIREMENTS, COSTS AND EXPECTED RETURNS FOR CROP AND LIVESTOCK ENTERPRISES — ROLLING BLACKLAND SOILS OF THE CENTRAL BLACKLAND PRAIRIE OF TEXAS. B. G. Freeman and D. S. Moore, Texas Agricultural Experiment Station, and R. H. Rogers, Farm Production Economics Division. Tex. Agr. Expt. Sta. MP-752. PRODUCTION AND PRODUCTION REQUIREMENTS, COSTS AND EXPECTED RETURNS FOR CROP PRODUCTION ON WELL-DRAINED CLAY AND CLAY LOAM SOILS, COASTAL PRAIRIES OF TEXAS. D. S. Moore, Texas Agricultural Experiment Station, and R. H. Rogers, Farm Production Economics Division. Tex. Agr. Expt. Sta. MP-756.

These two reports are part of a larger project to provide guides to farmers for choosing among alternative production opportunities, especially as those opportunities are affected by changes in prices and technology.



recent publications

The publications listed here are issued by the Economic Research Service and cooperatively by the state universities and colleges. Unless otherwise noted, reports listed here and under Sources are published by ERS. Single copies are available free from The Farm Index, OMS, U.S. Department of Agriculture, Washington, D.C. 20250. State publications (descriptions below include name of experiment station or university after title) may be obtained only by writing to the issuing agencies of the respective states.

MILK PRODUCTION ALLOTMENT AND CLASS I BASE PLANS, MICHIGAN DAIRY FARMS. G. D. Irwin, Farm Production Economics Division, in cooperation with the Michigan State University Department of Agriculture. Mich. Agr. Expt. Sta. Agr. Econ. Rpt. 3.

For each type of farm considered in this study, profitable milk production was less under the two-price plans than under blend pricing for unlimited production, regardless of whether the farm could add land as a substitute.

MILK PRODUCTION FUNCTIONS IN RELATION TO FEED INPUTS, COW CHARACTERISTICS AND ENVIRONMENTAL CONDITIONS. E. O. Heady, N. L. Jacobson and A. E. Free-

man, Iowa State University Agricultural and Home Economics Experiment Station, and J. P. Madden, Farm Production Economics Division. Iowa Agr. Expt. Sta. Res. Bul. 529.

This study provides estimates of milk production functions as they relate to levels and proportions of grain and hay (forage) feeding.

AN ECONOMIC APPRAISAL OF SKIP-ROW COTTON PLANTING IN THE YAZOO-MISSISSIPPI DELTA. F. T. Cooke, Jr., and A. M. Heagler, Farm Production Economics Division, in cooperation with the Mississippi Agricultural Experiment Station. Miss. Agr. Expt. Sta. Bul. 697.

On better producing soils skip-row planting systems commonly used on Delta farms have an income potential greater than that of a similar amount of allotted cotton planted solid with soybeans on the remaining land. (See April 1965 Farm Index.)

THE EFFECT OF HARVESTING CONDITIONS ON COTTON QUALITY IN THE YAZOO-MISSISSIPPI DELTA. M. M. Lindsey, Farm Production Economics Division, in cooperation with the Mississippi Agricultural Experiment Station. Miss. Agr. Expt. Sta. Bul. 695.

This report evaluated the two methods of harvesting cotton in the Delta—hand and machine picking—based on ginning results by area, season, days of rainfall and inches of rainfall.

INSTALLMENT LAND CONTRACTS IN IOWA. M. Harris, Resource Development Economics Division, and N. W. Hines, University of Iowa College of Law. Iowa Agricultural Law Center Mono. 5.

If the land contract is to become a more effective device for serving the credit needs of farmers, the

primary concern must be shifted to improving it to safeguard against the causes of default. (See March 1965 Farm Index.)

AN ECONOMIC SURVEY OF THE APPALACHIAN REGION, WITH SPECIAL REFERENCE TO AGRICULTURE. R. I. Coltrane and E. L. Baum, Resource Development Economics Division, in cooperation with the West Virginia Agricultural Experiment Station. AER-69.

For at least the last four decades, the economy of the Appalachian highland area has been in a depressed condition, as reflected by the high rate of unemployment and low per capita income. The major obstacle to the development of agriculture in the region is the critical lack of land adapted to mechanized farming. (See March 1965 Farm Index.)

UTILIZATION AND COST OF LABOR FOR GINNING COTTON. C. C. Cable, Jr., Z. M. Looney and C. A. Wilmot, Marketing Economics Division. AER-70.

Many ginning firms are becoming increasingly concerned about their costs and are seeking ways to lower them. Increasing ginning volume and improving operating

For persons engaged in marketing economics research, two bibliographies have just been published by the Economic Research Service which should be of considerable interest.

The first, MARKETING ECONOMICS RESEARCH PUBLICATIONS, ERS-205, is a list of all publications issued by the Marketing Economics Division and by cooperating land-grant colleges and universities from 1950 through 1964.

The second, A BIBLIOGRAPHY ON COSTS, MARGINS AND EFFICIENCY IN MARKETING DAIRY PRODUCTS (compiled by A. F. Wolf) Unnumb. provides a guide to research on the costs and margins involved in moving dairy products from the farm to the consumer.

Single copies of both publications may be obtained by writing to the Division of Information, OMS, U.S. Department of Agriculture, Washington, D.C. 20250.

efficiency are two possibilities for reducing unit costs. (See March Farm Index.)

MARKET NEWS DISSEMINATION IN THE SOUTHWEST. P. E. Nelson, Jr., Marketing Economics Division. AER-71.

This report shows how farmers and tradesmen of the feed grain and livestock industries of the Southwest use market informa-

tion disseminated by public and private agencies, how they evaluate these information media and whether they would like changes in the content.

RADIATION - PASTEURIZING FRESH STRAWBERRIES AND OTHER FRESH FRUITS AND VEGETABLES: ESTIMATES OF COSTS AND BENEFITS. J. H. Droge, Marketing Economics Division, in cooperation with the Division of Isotopes Development, U.S. Atomic Energy Commission. ERS-225.

Radiation-pasteurizing of strawberries would reduce spoilage loss by at least enough to pay the cost of treatment, according to preliminary estimates of costs. (See March 1965 Farm Index.)

FOREIGN ECONOMIC GROWTH AND MARKET POTENTIALS FOR U.S. AGRICULTURAL PRODUCTS. A. B. Mackie, Development and Trade Analysis Division. FAER-24.

Expansion of imports of U.S. agricultural products by the high-income, developed countries as well as by the low-income, less developed countries has been directly related to the growth in per capita income in these countries. (See February 1965 Farm Index.)

Numbers in parentheses at end of stories refer to sources listed below:

1. B. H. Pubols, "Geographic Distribution of Fruit and Nut Production," Fruit Situa., TFS-154 (P); 2. E. L. Park, "Recent Trends in Apple Tree Numbers," Fruit Situa., TFS-154 (P); 3. H. G. Sitler, Costs of Selected Sizes and Types of Farm Machinery on Colorado Wheat Farms, Colo. Agr. Expt. Sta. Unnumb. (P*); 4. J. S. Hill, J. S. Hillman and P. L. Henderson, Some Economic Aspects of the Arizona Citrus Industry, Ariz. Agr. Expt. Sta. (M*); 5. Statistical Reporting Service, Number of Farms and Land in Farms, SpSy 3 (1-65), (P); 6. F. V. Waugh, Demand and Price Analysis—Some Examples from Agriculture, Tech. Bul. 1316 (P); 7. R. C. McElroy and E. E. Gavett, Termination of the Bracero Program: Some Effects on Farm Labor and Migrant Housing Needs, AER (M); 8. & 9. H. Bluestone, Egg and Broiler Outlook for 1965 (S); 10. R. F. Boxley, Jr., White and Nonwhite Owners of Rural Land in the Southeast, ERS-238 (M); 11. K. E. Blase, Developing Adequate Farms in the Eastern Ozarks of Missouri—The Importance of Family Help, Mo. Agr. Expt. Sta. (M*); 12. T. F. Hady and C. J. Hein (SM); 13. R. Bird and B. T. Inman, Income Opportunities for Rural Families from Outdoor Recreation Enterprises, AER-68 (P); 14. Z. M. Looney and others, Cost of Storing Seed Cotton, MRR-712 (P); 15. Cotton Situation, CS-218 (P); 16. R. Hall, "The Changing Market for Cotton,"

Cotton Situa., CS-217 (P); 17. R. S. Corkern, Marketing, Prices and Outlook for Jute and Allied Fibers (S); 18. R. M. Bennett, Receiving California-Arizona Fresh Fruits and Vegetables by Rail and Truck, Supplement to MRR-673 Unnumb. (P); 19. J. C. Eiland, Production Labor Requirements in Southern Rice Mills (M); 20. J. R. Pedersen, Economies of Scale in Turkey Hatcheries (M); 21. R. M. Bennett, "Interstate Shipments of Fresh Fruits and Vegetables by Rail and Truck," Mktg. and Trans. Situa., MTS-157 (P); 22. W. S. Hoofnagle (SM); 23. G. S. Brown, Agriculture in the U.S. and USSR—A Statistical Comparison (M); 24. B. A. Chugg, Agriculture in Southeast Asian Rice Bowl Countries and Its Relation to U.S. Foreign Trade in Farm Products (M); 25. Foreign Regional Analysis Division (SM); 26. C. A. Moore (SM); 27. W. F. Hall, Agriculture in Pakistan, ERS-For. 129 (P); 28. J. L. McCoy, Homemakers' Opinions and Preferences for Broiler-Fryers and Turkeys, SRS-7 (P); 29. W. H. Freund and R. B. Reese, Milk and Milk Products in the Nation's Schools, MRR-716 (P); 30. Tobacco Situation, TS-111 (P); 31. National Food Situation, NFS-112 (P); 32. E. G. Youmans (SM).

Speech (S); published report (P); unpublished manuscript (M); special material (SM); * State publications may be obtained only by writing to the experiment station or university cited.

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Hindsight

To an unhappy student, the idea of quitting high school may seem to have a lot going for it.

Many of the boys his age who've already quit are independent, with no homework to do or family curfews to observe. They've got jobs, cars and money of their own.

But what about a few years later? If these dropouts had it to do over again, would they still quit?

A group of young men from eastern Kentucky who had all been in the eighth grade at the same time were interviewed 10 years later by ERS researchers. Their average age when interviewed was 25 years. Of the 307 interviewees, about half had left their rural homes for cities in Kentucky or in southern Ohio. The rest had stayed in rural eastern Kentucky.

In the urban group, 65 of the young men had finished high school and 85 hadn't. In the rural group, 74 had finished high school and 83 had quit.

All of them were asked: "If you could start life over, what would you do differently?" Possible choices were: (a) nothing; (b) get more education; (c) study harder in school; (d) learn a trade; (e) save money; (f) postpone marriage; and (g) other.

Eighty-one per cent of the school dropouts still living in rural eastern Kentucky said they'd get more education if they could start over again. Eighty per cent of the dropouts living in the city said the same thing. Even among the high school graduates, 35 per cent of the rural group and 46 per cent of the urbanites said they'd get more education. (32)

THE FARM INDEX

CONTENTS

	page
THE FARM: <i>Focus on Fruit-facts and figures on fruit and nut production in the U.S.</i>	5
RURAL LIFE: <i>Landowners of the Rural South-out-migration affects tenure patterns</i>	9
MARKETING: <i>More Cotton Than Gins: The Backup Problem-the costs of storage</i>	11
THE FOREIGN MARKET: <i>U.S. □ AGRICULTURE □ U.S.S.R-a statistical comparison</i>	16
THE CONSUMER: <i>Chicken-Our Favored Fowl -poultry more popular on American menus</i>	20

Numbers in parentheses at end of stories refer to sources listed at end of issue.

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